Leadership in a Data-driven Age: Why the Best Managers Will Always Welcome Greater Transparency and Why Fundamental Leadership Components Haven't Changed

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The leaders of the business world are changing.

Data shows that demographically speaking, our leaders—across public and private sector, across all industries, and across politics—have been increasing in diversity across gender, ethnicity, and age—with many getting younger.

Historically, leaders in construction and infrastructure have not been renowned for—or needed to demonstrate—soft skills.

The 21st century world encompasses the transition to net-zero, big data, and hybrid working, so leaders will be under more pressure to develop and improve their interpersonal skills as they seek to encourage people to change people's mindsets and behaviours.

Some of the new priorities that infrastructure leaders will need to focus on include effectively communicating a sense of purpose and encouraging collaboration with a willingness to learn and embrace new skills.

The change in our leaders has been rapid and profound.

Let's consider some examples from outside our industry. In the United Kingdom, the most recent FTSE Women Leaders Review found that the proportion of FTSE100 board positions held by women has tripled in just over a decade—from 12.5% in 2010 to 39.1% in 2021.

A similar trend has been seen in the United States—although there, as in the U.K., there has been slower progress in getting women into the very top positions. Only 8.2% of Fortune 500 CEOs are women.

Until 1990, only 17 countries around the world had ever been led by a female head of state or government. As of 2021, according to the United Nation's women division, there were 26 women serving as head of state or government.

Again, this is far from parity. But it is progress.

LEADERS BECOMING YOUNGER, MORE DIVERSE AND MORE DATA SAVVY

Despite Joe Biden being the oldest person to serve as president of the United States, the trend in countries with long-established democracies has been for younger leaders. The average age at which leaders of countries in the Organization for Economic Cooperation and Development took office fell from around 53 in the 1970s to under 50 by the end of the century.

In terms of ethnicity, the number of board seats on S&P 500 companies held by diverse directors has risen from 13% to 23%

in less than a decade. The most recent U.K. general election, in 2019, saw a record 65 members of Parliament elected from minority ethnic backgrounds, up from 52 in 2017, 41 in 2015, 27 in 2010, and fewer than 10 in every election before 2001.

But there are other, less visible changes in our leaders. They are also increasingly well qualified and trained, as well as possess digital, technical, and communication skills that were not required in the past.

In a world where every aspect of performance is increasingly measurable (and measured), it is vital to make the best use of technology and understand, interpret, and act judiciously on data.

A recent PwC Future of Work and Skills survey of nearly 4,000 business and HR leaders concluded that if leaders were to address "urgent challenges" caused by disruption and economic uncertainty, they would need to "lean into data and develop their ability to use it to make more deliberate decisions."

It also suggested leaders would need to invest in—and understand—new cloud technologies, automation, and data models that "fuel outcomes-based decision-making and meaningful returns on investment."

While a good leader does not need to know how to do the job of every person on their team, they must understand every job done by every member of their team to make the right strategic decisions and maximise value.

Similarly, we would not expect our leaders to have the best data skills, or the best grasp of artificial intelligence, in their organisation. However, they must know enough to employ the right people, to understand when data is being used well or badly, and to see its potential.

The bar, in terms of technical knowledge and skills, is rising. It will continue to rise at pace.

THE GROWING NEED FOR SOFT SKILLS

At the same time, the need for "soft" skills has never been higher.

Employees now often expect more from their workplace than that it simply pays their wages at the end of the month. There is also, quite rightly, far lower tolerance for leaders who treat the people that they lead with a lack of proper understanding or respect.

There is also a far greater understanding across the corporate world that organisations are more productive when those who work there

feel a sense of purpose and belonging. These skills are not "nice to haves." They are crucial to good leadership.

We might think of these as new challenges that require new skills. But in many ways, at a higher level of abstraction, the requirements are the same as they ever were. When we think about traits of personality, character, and intellect that make for good leaders, they are not so very different now to how they were in the past.

That is to say, the best leaders of today would actually have been the best leaders in the past. It is just that in the past, we might have been less likely to recognise and give them the opportunity to demonstrate their talents.

THE TRAITS OF GOOD LEADERSHIP

What makes a good leader?

One is the ability to assess and act on complex evidence. This trait has become ever-more important in a data-driven age but has always been a key component.

We often talk of "decisiveness" as a key aspect of good leadership, but the truth is more complex. Decisive is good, but reckless is bad—and there can be a fine line between the two.

A good leader must understand what the evidence does not show, as well as what it does, and make the right calls at the right time. They must know when a good case becomes a compelling one. They must be able to see, and take account of, the full range of considerations and consequences a "decisive" action might have.

Data is important here, but it informs rather than replaces good judgement.

One of the most important skills with data, or information more broadly, is understanding what it does not show—what it cannot show—as well as what it does.

This is true of technology. Having an algorithm or artificial intelligence that assesses trends or staff performance might be a huge benefit, but good leaders need to understand their limitations, as well as their capabilities. Are there factors that are important, but difficult to quantify, which the technology does not understand? How are things like personal circumstances, or personal team dynamics, or the way morale affects performance to be accounted for?

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For example, data struggles to reveal why someone is not performing. One leadership trait that data cannot measure is empathy. Simon Sinek gave a TED Talk in 2014 about why good leaders make people feel safe. He said, "When a leader makes the choice to put their people first—when leaders create environments where people feel safe—collaboration, trust, and innovation thrive."

People value working for leaders who provide safety and certainty, especially in times of uncertainty that we faced over the past few years. We now have technology that can connect family members or onboard the next generation in the office. To allow that innovation to continue to thrive, it is now critical that current and upcoming leaders bring that comfort, safety, collaboration, and trust into any firm.

There is a trend for team members to seek on-the-spot recognition through interactive leader boards, helping colleagues gain information through nontraditional techniques, such as game-based learning and employee training. Society has become increasingly accustomed to social media-style recognition mechanisms in their personal life, such as goal-tracking progress bars, badges, and achievements. As an employer, Bentley practices communicating with team members at numerous levels using varied approaches, as it is increasingly crucial to entice new workers while also retain existing experienced team members.

Another key trait is the ability to get the best out of others.

A leader's greatest asset will always be the team that they lead. It is crucial to create a culture where people give their best—feel valued, included, and heard. Taking the time to properly assess the skills of a team is also important, making sure that they are being maximised.

Getting the best out of others can also involve reassuring colleagues and explaining how data is not to be feared as a big brother-style tool. A good leader will not seek to spy on staff,

so focusing on the value of data, and helping colleagues to understand the human benefits of working with data, will help people work more successfully.Data-informed decisions can help colleagues to remove mundane tasks from their lives and help them enjoy a better work-life balance.

A bad listener will always be a bad leader. While technology can assist, it cannot replace the intellectual and interpersonal demanded of the best leaders.

There are many others: imagination, the ability to set a clear strategy, a quick and flexible mind, commitment, persistence, empathy. And all those qualities would have been as productive in the past as they are today.

THE BENEFITS OF TRANSPARENCY

A crucial feature of a good leader is that they see transparency, and scrutiny, as an opportunity rather than a threat. A good leader, and their team, will thrive in a culture that rewards true excellence in leadership.

As Nick Smallwood, chief executive of Infrastructure and Projects Authority, said in the Transforming Infrastructure Performance Roadmap to 2030 white paper, "Strong and accountable leadership is vital to the success of the government's infrastructure agenda and underpins successful delivery across every stage of the infrastructure lifecycle. Currently, delivery is primarily led by traditionally trained engineers, but anticipating a future of complex, technology-driven project environments will require a broader range of more adaptable leaders."

Today's data-rich and more transparent working environments should result in having better managers that are leading teams and a more meritocratic system that yields better results.

It is good news for our workers, our shareholders, and society.

And it is, ultimately, good news for our managers too because the good ones will ensure that they will be accountable.